2006 11-14-2006 Systems Heads Meeting

- **Attendance**:
    - Keith Gollwitzer, Vaia, me, Paul Czarapata, Salah Chaurize., Ron Moore, Valeri, Craig Moore (late), Bob Mau (late),
    - Attendance low due to SNuMI review.
- **Machine Strategy**:
    - **Operations**
        -
    - **Linac**
        -
    - **Booster**
        -
    - **Pbar**
        - Lens gradient
            - Should see more beam in Debuncher and Accumulator when raise gradient, but the stacktail is expected to be the bottleneck at that time.   The bottleneck is where the stacktail drops the beam off to the core.
            - Debuncher production is around 25. Measured at DCCT in Debuncher. 30mA/hr at 8e12 at 2.4 second cycle time.
        - Stacktail changes
            - Move pickups further away from the core to extend the cooling.
            - Other move done upstairs - changing notches.
        - Valeri shows how Fokker-Plank equation saves the day…

        $$\frac{df}{dt} + \frac{d}{dx}\left(F(x,f)\right) = \frac{1}{2}\left(\frac{d}{dx}D(x)\frac{df}{dx}\right)$$

        -
        - The first term goes as Gain. It is the cooling
        - The second term as Gain squared.   It is the heating.

        $$F(x) = \sum G(\omega_n)e^{i\omega\left(\frac{x}{\eta}\right)}?\frac{\Delta p}{p}\left(1 - Ae^{-i\omega t??}\right)$$

        - $\omega_n = n\omega_0(1+\eta x)$
    - **Main Injector**
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        -
    - **Recycler**
        -
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    - **Tevatron**
        - Positions at the detectors - they are happy.
        - Starting last spring, had a problem zeroing the Tev correctors and zeroing the angle at the IP.
        - Tunes are not quite inn the right place. Vertical Pbar tune needs to go up. Still rad tripping D0 during the squeeze.
        - Orbits ok
        - Pbar loss early in the ramp, lose a few percent. Loss is at 153GeV.
        - Plans
            - Get back into routine operations
            - IPM
            - TEL2 studies.
            - AC dipole measurements. - proton only studies during shot setup.
            - One new sextupole PS for testing soon.
            - D0 not interested in 44x40?
            - Keep pushing protons.

- **SY120**
  - Rebulding Mtest is going well.
  - Good chance to meet Dec. deadline.
  - There is some work in Transfer Hall - 1 shift of work.
  - Spill will be the same.

- **NuMI**
  - Problem with NuMI. Thought of buying a off the shelf item - $100K?

- **MiniBooNE**